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CULTURAL DEPRIVATION AND READING ACHIEVEMENT--A SECONDARY ANALYSIS OF THE COOPERATIVE READING PROJECT DATA.

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A SECONDARY ANALYSIS OF THE NASHVILLE COOPERATIVE READING PROJECT DATA IS REPORTED. TO DETERMINE THE EFFECT OF FAMILY-HOME VARIABLES ON READING ACHIEVEMENT, THE PEABODY CULTURAL OPPORTUNITY SCALE WAS GIVEN TO DISADVANTAGED FIRST GRADERS IN 12 ELEMENTARY SCHOOLS SERVING THE LOW SOCIOECONOMIC AREAS OF THE COMMUNITY. OBJECTIVE DATA WERE GATHERED ON ROLE MODELS IN THE HOUSEHOLD, THE EDUCATIONAL LEVEL OF HOUSEHOLD MEMBERS, AND ECONOMIC DEPRIVATION. INTELLIGENCE WAS CONTROLLED IN THE ANALYSIS BY USING REGRESSION EQUATION PROCEDURES IN OBTAINING EACH INDIVIDUAL'S STANDARDIZED ACHIEVEMENT SCORE AND BY DIVIDING THE POPULATION INTO INTELLIGENCE CATEGORIES. CHI SQUARE WAS USED TO MEASURE THE EFFECT OF THE THREE FAMILY-HOME VARIABLES ON READING ACHIEVEMENT. RESULTS SHOWED THAT WHILE VARIATIONS IN THE ROLE MODEL ASSOCIATED WITH THE PERSON RESPONSIBLE FOR THE CHILD'S DEVELOPMENT DID NOT AFFECT READING ACHIEVEMENT, EDUCATIONAL LEVEL SEEMED TO HAVE THE GREATEST EFFECT. READING ACHIEVEMENT WAS HIGHEST WHEN THE EDUCATIONAL LEVEL OF A SISTER WAS HIGHEST, FOLLOWED BY THE FATHER, THEN THE MOTHER. THE SOURCE OF INCOME RATHER THAN THE AMOUNT SEEMED TO BE MORE IMPORTANT. THESE FINDINGS IMPLY THAT DEPRIVATION COULD PROMOTE OR PREVENT INTELLECTUAL DEVELOPMENT OF THE DEPRIVED CHILD, DEPENDING ON THE ATTITUDES AND VALUES OF THE DEPRIVED AND ON THE TRANSMISSION OF THESE IN SOCIALIZATION. (NS)

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CULTURAL DEPRIVATION AND READING ACHIEVEMENT:

A SECONDARY ANALYSIS OF THE COOPERATIVE READING PROJECT DATA*

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Over the past decade there has developed an increased awareness of and concern for disadvantaged school children. Educators have long been aware of the fact that the standard presentation of standard materials to these pupils would not result in the same level of school achievement as with the non-disadvantaged. That fact, which has been held intuitively, has now been empirically verified and widely disseminated.[1]

In a recent nationwide survey,[2] the extent of the inequities in our schools was well established. Those children who start with the poorest backgrounds and who are in greatest need of education are most likely to be placed in the most inadequate schools. In addition, the

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1. See, for example, M. H. Black, "Characteristics of the Culturally Disadvantaged Child," The Reading Teacher, Vol. 18 (1965) pp. 465-470; Allison Davis, Social Class Influences upon Learning (Cambridge: Harvard University Press, 1962); Martin Deutsch, "The Disadvantaged Child and the Learning Process." In A. Harry Passow (Ed.), Education in Depressed Areas (New York: Bureau of Publications, Teachers College, Columbia University, 1963), pp. 163-179; Gerald S. Lesser, Gordon Fifer and Donald H. Clark, "Mental Abilities of Children from Different Social-Class and Cultural Groups," Monographs of the Society for Research in Child Development, Vol. 30, No. 4 (1965); and D. R. Thomas, "Oral Language Sentence Structure and Vocabulary of Kindergarten Children Living in Low Socio-Economic Urban Areas." (unpublished doctoral dissertation, Wayne State University, 1961).

2. Ernest Q. Campbell and James S. Coleman, "Inequalities in Educational Opportunities in the United States." Paper read at the American Sociological Association, Miami Beach, Fla., August 31, 1966, and James S. Coleman, et al., Equality of Educational Opportunity (Washington: U. S. Government Printing Office, 1966).

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disadvantaged child is not exposed to the kinds of educational experiences which will actually improve his achievement.

Having established the existence of this condition, current ameliorative efforts are proceeding from two equally valid assumptions.[3] First, the environment of socialization of the disadvantaged does not provide the experiences necessary to prepare the child for successful performance in our school system. Second, the school programs which dominate public education in this country are not designed to build optimum learning experiences on the life histories of the disadvantaged, since they are based upon the assumption of a "middle class" early childhood experience background. While both of these assumptions are probably valid, the specific factors and the ultimate dynamics involved in the assumptions are still in need of much intensive study. When the total process which links environment, socialization, educational programs and learning are better understood, then specific corrective measures can be introduced where they are most likely to be accepted and where they are most likely to be effective. However, until this state of knowledge is achieved, relieving the situation must rely on acceptance of the above-stated assumptions and such knowledge as does exist. The two broad categories of programs which have developed from these assumptions are (1) intervention programs and (2) curriculum revision or enrichment programs. In the case of the former, the goal is to alter the environment of socialization in such a way that the disadvantaged child will enter school with capacities and abilities comparable to those of the "middle class" child. In a very broad sphere of activity the totality of programs directed at relieving poverty in this country may be viewed as indirect intervention programs. The second category of programs, involving curriculum, is an attempt at reducing or removing the "middle class" bias of our schools by providing educational experiences which are more relevant to the experiences of the disadvantaged or which attempt to make up the learning skill deficits of the disadvantaged.

The Cooperative Reading Project of Nashville, Tennessee, is an effort in the area of curriculum revision or enrichment. Basically, the purpose of this program is to determine the relative effectiveness of three methods of teaching reading (with and without an oral language stimulation program) to first grade disadvantaged children. The subjects of the study were taken from twelve elementary schools serving children from low socio-economic areas of the community. Of the twelve schools, nine were predominantly Negro and the other three approximately half Negro and half white. The sex distribution of the subjects was essentially half girls and half boys. The average IQ on the Stanford-Binet was 86.5 or about one standard

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3. See Benjamin S. Bloom, Allison Davis and Robert Hess, Compensatory Education for Cultural Deprivation (New York: Holt, Rinehart and Winston, Inc., 1965); and Hilda Taba and Deborah Elkins, Teaching Strategies for the Culturally Disadvantaged (Chicago: Rand McNally and Company, 1966).

deviation below the national norm. The complete details of the study to date are reported elsewhere and will not be repeated here.[4] Suffice it to note that at the end of one year of the study, there was considerable variation in reading achievement among these children, regardless of the treatment received.

The Method of Analysis

In the course of establishing the study, the Peabody Cultural Opportunity Scale was given to all subjects.[5] The Peabody Cultural Opportunity Scale is divided into four sections: I. Housing Conditions; II. Child Rearing; III. General Family Information; and IV. Family Income. The information obtained under each of these sections is objective, and includes nothing which requires true value judgments or subjective data.

The data from the Peabody Cultural Opportunity Scale were coded for punching into eighty-column punch cards, along with information on the specific treatment, intelligence test scores and achievement test scores. The specific codes utilized are present in the Code Manual, Appendix C.

Certain family-home variables were selected for analysis. These are specified below in the results. While the primary purpose of the study was to determine if there is a relationship between treatment and reading achievement, the purpose of this analysis was to determine if there was a relationship between family-home variables and reading achievement. Because subjects were assigned in a more or less random manner, it was assumed that family-home variables and treatment were unrelated; therefore, no attempt was made to control treatment.

The initial fact established from the data was the obvious relationship between intelligence and reading achievement. Because of this, all of the analysis had to include a control for intelligence. This was achieved in two ways. First, utilizing regression equation procedures, each individual's "expected" reading achievement score (based on his MA) was computed. His actual reading achievement score was then subtracted from the "expected" score. This difference was increased by a constant which removed negative scores and gave the total population an average score equal to 10.0. The formula for arriving at the standardized achievement score is as follows:

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4. L. M. Dunn, D. Neville, Carolyn F. Bailey, P. Pochanart and P. Pfost, The Effectiveness of Three Reading Approaches and an Oral Language Stimulation Program with Disadvantaged Children in the Primary Grades: After One Year. (IMRID Monograph No. 7, Nashville, Tennessee, Peabody College, 1967).

5. See Appendix A for a copy of the Peabody Cultural Opportunity Scale and Appendix B for the Guidelines used in completing the Scale.

$$10\ RD + 5.3226 - .1443\ MA = SRD$$

where RD = reading achievement; MA = intelligence; and SRD = standardized reading achievement. Thus a child RD = 1.2 and MA = 60 would have a standardized achievement score of 8.66; with RD = 1.2 and MA = 48, SRD = 10.40; etc. The average standardized achievement scores for each category of family-home variables were then compared and evaluated for significant differences.

The second method of control for intelligence was based on the division of the population into intelligence categories. Within intelligence categories, the association between reading achievement categories and family-home variables was measured by use of Chi-square. The population was first divided into three parts on the basis of intelligence or mental age. MA of 46 to 69 is defined as low, MA of 70 to 77, medium, and 78 to 106, high. Next, the population was divided on the basis of scores on reading achievement based on the Metropolitan Achievement Test. Students scoring 1.0 to 1.4 were defined as low, 1.5 to 1.6, medium, and 1.7 to 3.2, as high. These classifications put 159 in the low intelligence group, or 32.3 percent; 161 in the medium, 32.6 percent; and 173 in the high, 35.1 percent. There were 172 students who were classified as low in reading achievement, 34.9 percent; 179 as medium in reading achievement, 36.3 percent; and 142 as high in reading achievement, 28.8 percent. This second method was employed because of the possibility that the effects of family-home variables might be differentially mediated through intelligence. All of the results which follow are based on 493 first grade children for whom complete data were available.

The Rationale for the Analysis

The socialization of the "middle class" child in this country can be viewed as a series of learning situations in an environment which contains a variety of stimuli which will be perceived, categorized and remembered. The socialization also includes exposure to a variety of behavioral roles carried out with sufficient regularity that the child can develop basic definitions of the social world, who is in it and what they properly do. Ideally, this view of socialization assumes the presence of adults of both sexes, siblings of both sexes, and peers of both sexes. Adults other than the parents hopefully should be available to provide some variation of role models which facilitate sex generalizations as well as parental specification. Among the adults there should be individuals, preferably the parents, who are capable of anticipating the intellectual needs and capacities of the child and who value the intellectual development of the child. This requires an intellectually mature person and, in a sense, a morally mature person. Finally, the environment must have objects which can provide the full range of stimuli for the senses in an orderly manner. There must be things to see, touch, taste, hear and smell, presented in a reasonable sequence to enhance the child's mental growth.

While this can be considered an ideal situation for socialization, there can certainly be many acceptable deviations from this ideal. Children can be adequately socialized in a very wide variety of circumstances and conditions. There are, however, deviations which are detrimental to intellectual development and when the environment is characterized by a large or sufficient number of these variations, the child is properly considered deprived.

In their study of disadvantaged children, Peterson, et al., examine a number of aspects of the environment of socialization on the child's school achievement.[6] The family, to be most effective, must be an ongoing process and structure, and it must serve as a link between the individual and the community. The disadvantaged are usually classified as such on the basis of economic or ethnic factors. From this study, however, it is apparent that it is not these factors but the many things which they imply which are detrimental to academic achievement. Having or not having money is not so important but the implication of this for values, attitudes and behavior is important.

The analysis which has been used here looks very broadly and indirectly at three types of potential deprivation. The first type of deprivation considered is the extent to which adequate role models are present in the environment. The specific roles examined are those of mother and father. The mother is considered from the traditional view as having primary responsibility for the child's development. If this responsibility is assumed by someone else, the role model is imperfect. The father role is considered simply in terms of its being present in the situation and who is filling it.

The second type of deprivation is concerned with the presence of an intellectually mature person who is capable of anticipating the child's capacities. This factor is approached through analysis of the educational level of the person responsible for the child and the highest educational level attained by any household member. While the presence of a well educated person does not assure intellectual development any more than the absence of such a person assures lack of development, this seems to be the best measure available among these objective data.

The final type of deprivation dealt with in this analysis has to do with the extent of stimulation in the environment. While the quantity and quality of stimuli in the environment are not equivalent to economic status, they are certainly related to it. For this reason, the economic situation has been employed as an indirect measure of the probability that the environment will be stimulating.

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6. Richard A. Peterson, et al, Educational Supportiveness of the Home and Academic Performance of Disadvantaged Boys. (IMRID Monograph No. 3, Nashville, Tennessee, Peabody College, 1966).

Results

At the outset it seems advisable to clarify and qualify the material which will follow. In large measure, the analyses did not yield statistically significant differences between the categories which were examined. Nevertheless, in places, the implications of the trends suggested by the data are discussed. Obviously, this violates the basic premises of the method of analysis which leads to the conclusion of no differences. This is recognized and all statements must therefore be accepted as being very qualified and highly speculative.

The data indicated that variations in the role model associated with the person responsible for the child's development have no effect on achievement (see Tables 1, 2A and 3). The only trend suggested here is when the

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Table 1

Effect of Who Is Responsible for the Child on Reading Achievement*

	Responsibility		
	Mother	Grandmother	Other
Average Achievement	9.94	10.30	10.15
Standard Deviation	3.02	3.54	2.29
N	425	38	27

No significant difference

*Reading achievement scores reported here are standardized for intelligence.

Table 2A

Effect of Age of Person Responsible for the Child on Reading Achievement

	Age of Person Responsible		
	Under 35	35-49	Over 49
Average Achievement	10.01	9.87	10.43
Standard Deviation	3.26	2.55	3.54
N	285	166	40

No significant difference

Table 2B

Effect of Age of Person Responsible for the Child on Reading Achievement by Intelligence

Age	Reading Achievement		
	Low	Medium	High
Low Intelligence Pupils			
Under 35	57.3	30.3	12.4
35 and over	47.1	32.9	20.0
Total	52.8	31.5	15.7
X^2=2.31	.50>P>.30		N=159
Medium Intelligence Pupils			
Under 35	32.0	43.7	24.3
35 and over	31.0	46.6	22.4
Total	31.7	44.7	23.6
X^2=.14	.95>P>.90		N=161
High Intelligence Pupils			
Under 35	25.8	28.0	46.2
35 and over	16.2	38.8	45.0
Total	21.4	32.9	45.7
X^2=3.33	.20>P>.10		N=173

Table 3A

Effect of Outside Work by Person Responsible for the Child on Reading Achievement

	Person Responsible Works Outside			
	NO	DAYS		
		1-3	4-5	6-7
Average Achievement	9.86	9.64	10.15	9.89
Standard Deviation	2.82	2.47	3.00	3.94
N	204	41	172	54

No significant difference

Table 3B

Effect of Outside Work by Person Responsible for the Child on Reading Achievement by Intelligence

Work Outside	Reading Achievement		
	Low	Medium	High
Low Intelligence Pupils			
No	56.2	24.6	19.2
Yes	50.0	37.2	12.8
Total	52.8	31.5	15.7
X^2=3.22	.30>P>.20	N=159	
Medium Intelligence Pupils			
No	33.3	44.0	22.7
Yes	30.5	45.3	24.2
Total	31.7	44.7	23.6
X^2=.15	.95>P>.90	N=161	
High Intelligence Pupils			
No	27.3	33.3	39.4
Yes	17.8	32.7	49.5
Total	21.4	32.9	45.7
X^2=2.65	.30>P>.20	N=173	

high intelligence category is viewed separately (see Table 2B). While not significant, being raised by a younger person (under age 35) seems to be detrimental for high intelligence children. This same trend is present, though not as strong, for low intelligence children. The presence of a father figure, and more specifically, the father himself does seem to have an effect on reading achievement. The difference in achievement for children with no father figure compared with those whose father is present is significant at the .05 level (see Table 4A). The other scores in this table support the importance of having a father figure present. While the analysis of the intelligence groups separately does not yield significant differences, the trend in these data support this and suggest that a father figure's presence or absence is more important for the high intelligence

Table 4A

Effect of Who Acts as Father Figure
on Reading Achievement

	Child's Father Image			
	None	Father	Foster Father Grandfather	Other
Average Achievement	9.44	10.20	10.00	9.65
Standard Deviation	2.87	3.14	2.82	2.08
N	97	298	49	43

Significant Difference: "None" and "Father" - .05 level

Table 4B

Effect of Who Acts as Father Figure
on Reading Achievement by Intelligence

Father Figure	Reading Achievement		
	Low	Medium	High
Low Intelligence Pupils			
None	59.4	31.2	9.4
Someone	51.2	31.5	17.3
Total	52.8	31.5	15.7
X^2=1.33	.70>P>.50		N=159
Medium Intelligence Pupils			
None	38.2	47.1	14.7
Someone	29.9	44.1	26.0
Total	31.7	44.7	23.6
X^2=2.05	.50>P>.30		N=161
High Intelligence Pupils			
None	32.2	22.6	45.2
Someone	19.0	35.2	45.8
Total	21.4	32.9	45.7
X^2=3.36	.20>P>.10		N=173

Table 5A

Effect of Who Is Main Wage Earner
on Reading Achievement

	Main Wage Earner		
	Father	Mother	Other
Average Achievement	10.10	10.19	9.52
Standard Deviation	3.12	3.46	2.40
N	271	106	75

Significant Difference: "Father" and "Other" - .10 level

Table 5B

Effect of Who Is Main Wage Earner
on Reading Achievement by Intelligence

Wage Earner	Reading Achievement		
	Low	Medium	High
Low Intelligence Pupils			
Father	58.1	26.8	15.1
Other	46.6	37.0	16.4
Total	52.8	31.5	15.7
X^2=2.41	.30>P>.20		N=159
Medium Intelligence Pupils			
Father	31.0	36.8	32.2
Other	32.4	54.1	13.5
Total	31.7	44.7	23.6
X^2=8.65	.02>P>.01		N=161
High Intelligence Pupils			
Father	19.4	33.7	46.9
Other	24.0	32.0	44.0
Total	21.4	32.9	45.7
X^2=.56	.80>P>.70		N=173

child. Tables 5A and 5B show that the father's being the main wage earner is beneficial in terms of reading achievement and especially so for the medium intelligence children. This seems to indicate that a complete rather than a fragmented structure is important.

The educational level of the household in general and of the person responsible for raising the child proved to be the most important factors developed in this study. As the data in Table 6A indicate, the reading achievement of a child being raised by a person with an education of six to nine years is significantly less than the other three

Table 6A

Effect of Education of Person Responsible for the Child on Reading Achievement

	Education of Person Responsible			
	0-5	6-9	10-12	13+
Average Achievement	10.61	9.46	10.11	11.02
Standard Deviation	2.73	2.77	3.14	3.80
N	31	162	257	33

Significant Difference: "Grades 0-5" and "6-9" --- .05 level
Significant Difference: "Grades 6-9" and "10-12" - .05 level
Significant Difference: "Grades 6-9" and "13+" --- .05 level

levels considered, including the lower educational level. In viewing the three intelligence groups separately (see Table 6B), a related pattern is shown for the high intelligence children. The data in Table 7A indicate that when the highest educational level in the household is at twelve to eighteen years of school, reading achievement is highest and significantly higher than the seven to eight year and eleven year level. Table 7B again shows this most evident in the high intelligence children. In all of these data it is interesting to note that achievement is higher than one would expect for the lowest education level. No doubt this is due, in part, to the manner in which the standardized achievement score was computed and the relation between educational environment and intelligence score. Nevertheless, there is the possibility that the most deprived educationally place an extreme value on education for their children. Contrary to expectation, if a sister has the most education in the household, achievement is highest. This is followed by the father having the most education and then the mother (see Table 8). These data, as well as that which has preceded suggest

Table 6B

Effect of Education of Person Responsible for the Child on Reading Achievement by Intelligence

Years	Reading Achievement		
	Low	Medium	High
Low Intelligence Pupils			
0-9	52.6	30.8	16.6
10 and over	54.5	29.9	15.6
Total	53.6	30.3	16.1
X^2=.07	.98>P>.95		N=155
Medium Intelligence Pupils			
0-9	36.8	42.1	21.1
10 and over	28.0	48.0	24.0
Total	31.2	45.9	22.9
X^2=1.31	.70>P>.50		N=157
High Intelligence Pupils			
0-9	31.0	31.0	38.0
10 and over	16.8	34.5	48.7
Total	21.6	33.4	45.0
X^2=4.62	.10>P>.05		N=171

that the role of father in this environment is much more important than it has traditionally been assumed to be.. While the role of mother is unquestionably central to the intellectual, value and motivational development of the child, the father may also be an actively concerned party.

The final type of deprivation to be considered here, economic deprivation, is the most frequently used and probably the most readily observed. As shown in Table 9A, there is no significant difference in achievement associated with the family's being on welfare. There is, however, a significant detrimental effect from being on welfare for the medium intelligence children and strong suggestions of a trend in this direction for high intelligence children. The only significant difference in achievement

Table 7A

Effect of Household Education Level
on Reading Achievement

	Highest Grade Completed					
	0-6	7-8	9	10	11	12-18
Average Achievement	10.10	9.27	9.70	9.92	9.38	10.50
Standard Deviation	2.54	2.48	2.88	3.40	2.45	3.32
N	30	65	35	68	74	215

Significant Difference: "Grades 7-8" and "12-18" - .01 level
Significant Difference: "Grade 11" and "12-18" --- .01 level

Table 7B

Effect of Household Education Level
on Reading Achievement by Intelligence

Years	Reading Achievement		
	Low	Medium	High
Low Intelligence Pupils			
0-9	58.2	30.9	10.9
10-11	44.0	36.0	20.0
12 and over	57.7	26.9	15.4
Total	53.5	31.2	15.3
X^2=3.38	.50>P>.30		N=157
Medium Intelligence Pupils			
0-9	41.0	33.3	25.7
10-11	38.6	43.2	18.2
12 and over	24.0	50.7	25.3
Total	32.3	44.3	23.4
X^2=5.55	.30>P>.20		N=158
High Intelligence Pupils			
0-9	22.2	36.1	41.7
10-11	35.4	35.4	29.2
12 and over	12.5	30.7	56.8
Total	20.9	33.1	46.0
X^2=13.41	.01>P>.001		N=172

Table 8

Effect of Who Has the Most Education in the Household on Reading Achievement

	Person with Most Education			
	Father	Mother	Sister	Other
Average Achievement	10.33	9.80	10.63	9.62
Standard Deviation	2.91	3.12	3.99	2.26
N	128	263	39	59

Significant Difference: "Father" and "Mother" - .10 level
Significant Difference: "Father" and "Other" -- .10 level

associated with family income (see Tables 10A and 10B) is between the low income group (less than $3,000) and the middle income group ($3,000 to $5,999). All of this suggests that the economic level itself may not be as important as it has been assumed to be. The way in which income is received -- specifically welfare versus non-welfare -- seems to be more important than the amount of income.

Table 9A

Effect of Family Being on Welfare on Reading Achievement

	Family on Welfare	
	No	Yes
Average Achievement	10.03	9.79
Standard Deviation	2.96	3.37
N	399	53

No significant difference

Table 9B

Effect of Family Being on Welfare
on Reading Achievement by Intelligence

On Welfare	Reading Achievement		
	Low	Medium	High
Low Intelligence Pupils			
No	53.3	31.1	15.6
Yes	51.4	32.4	16.2
Total	52.8	31.5	15.7
X^2=.05	.98>P>.95		N=159
Medium Intelligence Pupils			
No	27.7	46.9	25.4
Yes	48.4	35.5	16.1
Total	31.7	44.7	23.6
X^2=5.06	.10>P>.05		N=161
High Intelligence Pupils			
No	20.4	30.6	49.0
Yes	26.9	46.2	26.9
Total	21.4	32.9	45.7
X^2=4.44	.20>P>.10		N=173

Table 10A

Effect of Family Income on Reading Achievement

	Family Income		
	Less than $3000	$3000 to $5999	$6000 + over
Average Achievement	9.80	10.33	9.94
Standard Deviation	2.76	3.25	3.26
N	220	200	48

Significant Difference: "Less than $3000" - .10 level
Significant Difference: "$3000 to $5999" -- .10 level

Table 10B

Effect of Family Income on Reading Achievement by Intelligence

Income	Reading Achievement		
	Low	Medium	High
Low Intelligence Pupils			
Less than $3000	56.8	26.1	17.1
$3000 and over	47.9	38.0	14.1
Total	52.8	31.5	15.7
X^2=2.61	.30>P>.20		N=159
Medium Intelligence Pupils			
Less than $3000	34.8	45.5	19.7
$3000 and over	29.5	44.2	26.3
Total	31.6	44.7	23.6
X^2=1.11	.70>P>.50		N=161
High Intelligence Pupils			
Less than $3000	22.7	36.4	40.9
$3000 and over	20.6	30.8	48.6
Total	21.4	32.9	45.7
X^2=.97	.70>P>.50		N=173

Summary

For culturally deprived children, the most important factor affecting reading achievement seems to be the educational level represented in the home. If the child has access to someone with a high school education or better, the data indicate he is likely to have a higher achievement score. This, no doubt, reflects not only direct influence such as help with reading but also the more subtle factor of value placed on education.

The data suggest that the father figure in the family is more important than might be assumed. Many studies[6] have concentrated on the role of the mother and her significance in intellectual development. While this

6. See, for example, Peterson, et al., op. cit.

is certainly a valid emphasis, the data here indicated that the father's presence in the home is beneficial and that his educational level is an important factor in reading achievement. While there should be continued emphasis on the role of the mother, it seems reasonable to suggest that this emphasis should be broadened in recognition of the potential influence of both parents.

Economic factors did not prove to be as important in reading achievement as had been expected. While there were some differences associated with being on welfare or not, and with amount of family income, these were not as strong nor as consistent as had been anticipated.

Finally, throughout the analysis it was apparent that the various factors under consideration did not have the same effect on the three intelligence groups. The lowest intelligence group seems to be less sensitive to these factors than the other two groups, with the highest group being the most sensitive.

Conclusions

The most decisive thing which can be concluded from this analysis is that the factors considered do not have a dramatic effect on reading achievement for these children. That this is true is not really surprising when one reviews the situation. First of all is the fact that the achievement scores upon which the analysis was based were taken at the end of the first year of school. The possibility and probability of differences after so short a time in school is slight. Many effects cannot be observed until the possible range of scores is sufficiently large for variation to occur.

A second very important factor contributing to the findings is the fact that this is a relatively homogeneous population. While it has been possible to divide the population into analytical categories, these divisions take place within a very limited range of the possible categorizations for such variables. To an extent differences were not observed because, in essence, there were no real differences between the various analytical categories.

Finally and most importantly, it must be remembered that deprivation -- be it cultural, social or economic -- is a meaningful concept only through the subtle subjective aspects of socialization. Associations between readily observable objective factors do not touch the much more significant process variables which truly produce the deprived child. The attitudes and values of the deprived and the transmission of these in socialization are the real factors which produce or fail to produce an intellectually deprived individual. While objective data are valuable and useful, it must not be assumed that they are of themselves capable of predicting high achievers or low achievers. Such data can only serve as limited indicators of a much more important and subtle process.

July 1967

APPENDICES

APPENDIX A

PEABODY CULTURAL OPPORTUNITY SCALE 65-66 Rev.

Pupil's name _____ _____ _____ School _____
Last First Middle

Pupil's race: (check one) _____ Negro _____ White

Sex: (check one) _____ boy _____ girl

Pupil's address_____ Teacher_____

Who provided the information? (check one) _____mother; _____grandmother;
_____aunt; _____older sister; _____other (specify)_____

* * * * * * * * * *

I. HOUSING CONDITIONS (check one of the following)

_____Slum, multiple family dwelling (apartment in disrepair; a large, old house converted to apartments, or top floor of store or business, etc.)

_____Slum shack (very poor house for a single family; uncared for, unpainted)

_____Lower class house (cheap house for a single family -- market value under $4000, but showing some signs of care)

_____Cooperative housing project

_____Fair house or apartment (house market value $4000 to $8000 or equivalent; house and yard in fairly good condition)

_____Good house or apartment (house market value $8000 to $13,000 or equivalent; house/apartment and yard in very good condition)

_____Very good house or apartment (house market value above $13,000 or equivalent; fine house/apartment and yard)

II. CHILD REARING

A.1. Who has major responsibility for taking care or rearing (acting as mother to) the child? ____mother; ____grandmother; ____aunt; ____older sister; ____other (specify)_____

2. Age: ____under 20; ____20-34; ____35-49; ____50-64; ____65 or over

3. Education: (circle one) 1 2 3 4 5 6 7 8 9 10 11 12; (u) 1 2 3 4; (g) 1 2 3

4. Does this person also work outside the home? _____yes;_____no. If yes, how many days per week? ___up to 1; ___2; ___3; ___4; ___5; ___6; ___7

B.1. Who in the home acts as the child's father? ____no male father figure; ____father; ____foster father; ____grandfather; ____other (specify)_____

III. GENERAL FAMILY INFORMATION

A.1. What is the total number of persons (including the pupil) living in the child's home? (circle one) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 other (specify) _____

B.1. How many rooms (excluding halls, bathrooms, closets, porches, etc.) does the family group occupy? (circle one) 1 2 3 4 5 6 7 8 9 10 other (specify) _____

C.1. What is the education level of the member of the family group which has the most formal schooling? (circle one) 1 2 3 4 5 6 7 8 9 10 11 12; (u) 1 2 3 4; (g) 1 2 3

2. What is the relationship of this person to the child? (check one) ____father; ____foster father; ____mother; ____sister; ____other (specify)_____

IV. FAMILY INCOME

A.1. Is the family now on welfare, AFDC, etc.? ____yes; ____no

B.1. What is the combined annual income of all members of the household (including welfare)? (check one) ____less than $3000; ____ $3000 to $5999; ____$6000 to $8999; ____over $9000

C.1. Who is the main wage earner (bread winner) in the family? (check one) ____father; ____foster father; ____mother; ____sister; ____ other (specify)_____

2. What is the occupation of the main wage earner of the family? (check one)

_____Private household service worker (dayworker, laundress, housekeeper, butler, houseman, nursemaid, maid, cook, babysitter, yardman, companion, caretaker)

_____Non-household personal service worker (barmaid, waitress, bartender, cook, hospital attendant, hotel or motel maid, bellhop, kitchen worker, counterman)

_____Community service worker (crossing guard, meter maid, policeman, attendant, night watchman, fireman, social worker, postman, probation officer)

_____Non-household maintenance service worker (cleaning woman, janitor, porter, elevator operator, busboy, refuse collector, street cleaner, park keeper)

_____Day laborer (car washer, food handler, construction worker, industrial worker, truck loader, parking lot attendant, tobacco picker, shop helpers)

_____Semi-skilled laborer (laundry worker, signalman, sewing machine operator, chauffeur, truck driver, coin machine filler, service station attendant)

_____Skilled laborer (dressmaker, seamstress, bricklayer, auto mechanic, welder, painter, plumber, sheet metal worker, photographer, butcher, bookbinder)

_____Clerical and sales worker (saleswoman, office clerk, office machine operator, telephone operator, timekeeper, bookkeeper, shipping and receiving clerk)

_____Professional, technical and managerial worker (nurse, teacher, musician, doctor, accountant, laboratory technician, business or office manager, lawyer)

3. Name the actual occupation_____

APPENDIX B

PEABODY CULTURAL OPPORTUNITY SCREENING SCALE 65-66 Rev.

GUIDELINES

I. Housing Conditions: check the one item which best describes the dwelling unit in which the child resides.

II. Child Rearing

A.1. Responsibility: check the one item which best describes the person who is in charge of raising the child. If this person holds some other relationship to the child than those offered (e.g. foster mother, father) specify that relationship.

2. Age: check the age range within which II.A.1. falls.

3. Education: circle the number indicating the highest grade completed by II.A.1. Numbers 1, 2, 3 and 4 following the (u) indicate the number of undergraduate years completed and 1, 2, and 3 after the (g) indicate the graduate years.

4. Employment: check both whether II.A.1. works outside of the home and the item which beats describes the number of days II.A.1. is engaged in such employment during the week.

B.1. Father: check the one person who acts as the male surrogate to the child. If this person falls in some category not listed, specify their relationship to the child (e.g. friend, uncle).

III. General Family Information

A.1. Number of persons: circle the total number of adults and children, including the pupil, who reside in the same dwelling unit as the child.

B.1. Number of rooms: circle the number of rooms which make up the living quarters of the dwelling unit in which the child lives, remembering to exclude halls, closets, etc.

C.1. Education: circle the number indicating the highest grade completed by III.A.1.

2. Relationship: check the item which gives the relationship of III.C.1. to the child. If this person holds some other relationship to the child than those offered (e.g. grandmother, friend) specify that relationship.

IV. Family Income

A.1. Welfare: if the family has received any public assistance in the last year, check _____yes.

B.1. Combined gross annual income: check the range within which the sum of all the money earned or received by all members of the family in the last year falls. Remember to include public assistance of any kind.

C.1. Main wage earner: check the item which indicates which member of the family had the largest income last year.

OCCUPATION CLASSIFICATIONS

(primarily derived from the Dictionary of Occupational Titles and its companion book on occupational classifications)

Private household service workers

Private household service workers are involved primarily with the maintenance of homes, their grounds, etc. They are engaged in tasks associated with, for example, cooking meals, caring for children, or caring for the house or yard.

dayworker	laundress	housekeeper
houseman	butler	nursemaid
maid	cook	babysitter
yardman	companion	caretaker

Non-household personal service workers

Personal service workers are involved primarily with services which are given directly to people, hence a major defining characteristic of the work performed by them is that they are in direct contact with the persons to whom they render service and that this service is often designed to make them more comfortable.

barmaid	waitress	hospital attendant
cook	bellhop	hotel or motel maid
bartender	kitchen worker	counterman

Community service workers

Community service workers are involved primarily with services rendered to the community.

crossing guard	meter maid	policeman
attendant	night watchman	fireman
social worker	postman	probation officer

Non-household maintenance service workers

Non-household maintenance service workers are primarily involved in the upkeep of businesses and industrial property. This would include the grounds as well as the physical plant and the equipment of such organizations.

cleaning woman	janitor	elevator operator
porter	busboy	refuse collector
park keeper	road repairman	street cleaner

Day laborers

Day laborers perform simple duties which may be learned in a short time and which require the exercise of little or no independent judgment. Usually no previous experience is required for such employment. They are unskilled.

car washer	food handler	construction worker
industrial worker	truck loader	parking lot attendant
tobacco picker	shop helpers	stock boy (in a supermarket, etc.)

Semi-skilled laborers

Semi-skilled laborers perform manual tasks which are less dependent upon dexterity than on vigilance and alertness. They exercise independent judgment which is limited to their task and no broad knowledge of their field is required. Their tasks generally require a high order of manipulative ability and are limited to a well defined work routine.

laundry worker	signalman	sewing machine operator
chauffeur	truck driver	coin machine filler
route man	delivery man	service station attendant

Skilled workers

Skilled workers perform tasks which require a thorough and comprehensive knowledge of the field in which they work, a considerable judgment and a high degree of dexterity. Often they are responsible for the care of valuable equipment. Their jobs usually require extensive training; e.g. apprenticeships or schooling.

dressmaker	seamstress	bricklayer
auto mechanic	welder	painter
plumber	sheet metal worker	photographer
butcher	chief baker	bookbinder

Clerical and sales workers

Clerical and sales workers' duties involve the preparation, transcribing, transferring, systematizing, or preserving of written communications and records in offices, shops, etc.

saleswoman	office clerk	office machine operator
bookkeeper	timekeeper	telephone operator
cashier	telegraph messenger	shipping and receiving clerk

Professional, technical and managerial workers

Professional, technical and managerial workers' occupations require a high degree of mental activity and are concerned with the theoretical or practical aspects of complex fields of endeavor. They require extensive and comprehensive academic study and/or great experience.

nurse	teacher	musician
doctor	accountant	laboratory technician
lawyer	electrical engineer	office or business manager

APPENDIX C

CODE MANUAL

Card Col(s)			
1-5	ID Number		
	(first digit	0 = No PLDK	)
	(	1 = PLDK	)
	(second digit	0 = control	)
	(	1 = ITA	)
	(	2 = WIC	)
	(	3 = SCRP	)
	(third digit	0 =)	)
	(	1 =)	)
	(	2 =) Class Number	)
	(	3 =)	)
	(fourth, fifth	00 =)	)
	(digit	01 =) Student	)
	(	02 =) Number	)
	(	etc =) within class	)
6-7	CA (bottom)		
8-10	SB-IQ Pre-Test (top)		
11-13	SB IQ (bottom)		
14-16	SB - MA Pre-Test (top)		
17-19	SB - MA (bottom)		
20-22	LA Pre-Test (top)		
23-25	LA (bottom)		
26-27	WK)		
	)		
28-29	WO)		
	) MAT		
30-31	RD)		
	)		
32-33	AR)		

Peabody Cultural Opportunity Scale

34	Race	0 = Negro
		1 = White

35 Sex
0 = boy
1 = girl

36 Respondent
0 = mother
1 = grandmother
2 = aunt
3 = older sister
4 = father
5 = brother
6 = foster mother or foster father
7 = other relative
8 = other
9 =

37 I. Housing Conditions
0 = slum, multiple family dwelling
1 = slum shack
2 = lower class house
3 = cooperative housing project
4 = fair house or apartment
5 = good house or apartment
6 = very good house or apartment

II. Child Rearing

38 A1. Responsibility
0 = mother
1 = grandmother
2 = aunt
3 = older sister
4 = father
5 = brother
6 = foster mother or foster father
7 = other relative
8 = other
9 =

39 A2. Age
0 = under 20
1 = 20-34
2 = 35-49
3 = 50-64
4 = 65 or over

40-41 A3. Education
01 = 1
02 = 2
03 = 3
etc
11 = 11
12 = 12
13 = (U) 1
14 = 2
15 = 3
16 = 4
17 = (G) 1
18 = 2
19 = 3

42	A4. Work outside	0 = No 1 = Yes, up to 1 day a week 2 = Yes, up to 2 days a week 3 = " " " 3 " " " 4 = " " " 4 " " " 5 = " " " 5 " " " 6 = " " " 6 " " " 7 = " " " 7 " " "
43	B1. Child's father	0 = no male father figure 1 = father 2 = foster father 3 = grandfather 4 = stepfather 5 = uncle 6 = stepgrandfather 7 = other male 8 = female 9 =
	III. General Family Information	
44-45	A1. Number of persons in home?	01 = 1 02 = 2 03 = 3 etc.
46-47	B1. How many rooms?	01 = 1 02 = 2 03 = 3 etc.
48-49	C1. Most education	01 = 1 02 = 2 03 = 3 etc. 11 = 11 12 = 12 13 = (U) 1 14 = 2 15 = 3 16 = 4 17 = (G) 1 18 = 2 19 = 3

50	C2.	Relationship	0 = father 1 = foster father 2 = mother 3 = sister 4 = grandmother 5 = aunt 6 = brother 7 = uncle 8 = other 9 =
	IV.	Family Income	
51	A1.	Welfare?	0 = No 1 = Yes
52	B1.	Annual income	0 = less than $3,000 1 = $3,000 to $5,999 2 = $6,000 to $8,999 3 = $9,000 and over
53	C1.	Main wage earner	0 = father 1 = foster father 2 = mother 3 = sister 4 = grandfather 5 = grandmother 6 = stepfather 7 = uncle 8 = other 9 =
54	C2.	Occupation category	0 = Private household service worker 1 = Non-household personal service worker 2 = Community service worker 3 = Non-household maintenance service worker 4 = Day laborer 5 = Semi-skilled laborer 6 = Skilled laborer 7 = Clerical and sales worker 8 = Professional, technical and managerial worker
55-57	C3.	Actual occupation	see Alphabetical Index of Occupations and Industries